

REMARKS

Claims 21 and 27 have been amended. No new matter has been introduced. Claims 33, 36-39, and 41 have been withdrawn. Claims 21, 27, and 47-55 are pending.

Claims 21, 27, 47-50, and 53-55 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,188,094 (Kochi). Applicant respectfully traverses the rejection.

Embodiments of the invention relate to a light detecting system. Accordingly, amended independent claim 21 recites “a light detecting system comprising: a substrate having a plurality of photosensitive regions; and a substantially planar microlens array formed over said plurality of photosensitive regions.” Claim 21 further recites the microlens array including “a first light conductor having a plurality of concave recesses, and a second light conductor within each recess and over substantially planar surfaces formed between said concave recesses of said first light conductor.”

Independent claim 27, as amended, recites “an integrated circuit comprising a substrate having a plurality of photosensitive regions; a microlens array formed over said plurality of photosensitive regions; said microlens array comprising; a first light conductor having a plurality of concave recesses, a second light conductor within each recess and over said first light conductor, said second light conductor being coextensive with an adjacent second light conductor in at least a first plane and having a substantially planar surface, and readout circuitry coupled to said plurality of photosensitive regions.”

Kochi relates to a solid-state image pickup device. Kochi fails to disclose, teach, or suggest “a substantially planar microlens array formed over said plurality of photosensitive regions; said microlens array comprising; a first light conductor having a plurality of concave recesses, and a second light conductor within each recess and over substantially planar surfaces formed between said concave recesses of said first light conductor,” as recited in independent claim 21. An advantage of the microlens array of the FIG. 4 example embodiment is to decrease the amount of cross talk between pixel cells. The amount of cross talk is reduced by providing a second light conductor over a planar surface of a first light conductor. The second light conductor reduces the amount of light entering the planar surface of the light conductor, and

thereby limiting the amount of unguided light that travels through the microlens array. *See* paragraph [0028] of the Applicant's application ("the '222 application"). Kochi does not address the problem of cross talk, much less disclose, teach, or suggest a way of reducing cross talk.

For at least this reason, Applicant respectfully submits that claim 21 is allowable over Kochi. Claims 47-50 depend from claim 21 and are allowable along with claim 21 and on their own merits.

Kochi similarly fails to disclose, teach, or suggest an integrated circuit having a microlens array comprising "a first light conductor having a plurality of concave recesses, and a second light conductor within each recess and over said first light conductor, said second light conductor being coextensive with an adjacent second light conductor in at least a first plane and having a substantially planar surface," as recited in claim 27. The FIG. 10 example embodiment minimizes the amount of light reflected, while focusing the light onto respective photosensitive regions. *See* paragraph [0048] of the '222 application. Kochi does not address light reflection, much less disclose, teach, or suggest a way of minimizing reflection.

For at least this reason, Applicant respectfully submits that claim 27 is allowable over Kochi. Claims 53-55 depend from claim 27 and are allowable along with claim 27 and on their own merits.

The rejection should be withdrawn and the claims allowed.

Claim 51 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kochi in view of the Alleged Prior Art (APA). Applicant respectfully traverses the rejection.

Claim 51 depends from claim 21. As discussed above, Kochi fails to disclose, teach, or suggest each and every limitation of claim 21. Accordingly, claim 51 is allowable over the combination of Kochi and APA. The rejection should be withdrawn and the claims allowed.

Claim 52 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kochi. Applicant respectfully traverses the rejection.

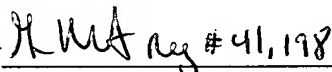
Claim 52 depends from claim 21. As discussed above with respect to claim 21, Kochi fails to disclose, teach, or suggest suggest microlens array comprising "a first light conductor having a plurality of concave recesses, and a second light conductor within each recess and over substantially planar surfaces formed between said concave recesses of said first light conductor," as recited in independent claim 21. Accordingly, it would not have been obvious to one having ordinary skill in the art at the time the invention was made to have a portion of the second light conductor having the claimed thickness, as the portion referred to by the Office Action is neither disclosed nor taught by Kochi.

For at least this reason, Applicant respectfully submits that claim 52 is allowable over Kochi. The rejection should be withdrawn and the claims allowed.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

By  # 41,198
Thomas J. D'Amico
Registration No.: 28,371
DICKSTEIN SHAPIRO LLP
1825 Eye Street, NW
Washington, DC 20006-5403
(202) 420-2200
Attorney for Applicant